

WHAT IS CLAIMED IS:

1. A subscriber side apparatus in an optically communicating system for carrying out an optical communication in two ways between a station side apparatus and said subscriber side apparatus, comprising:

a unit for detecting a power level of a downward light input signal from said station side apparatus; and

a unit for transmitting a control information corresponding to that detection value to said station side apparatus.

10 2. The subscriber side apparatus according to claim 1, wherein the detection value of the power level in the downward light input signal is transmitted to said station side apparatus for each constant time interval.

15 3. The subscriber side apparatus according to claim 1, wherein whether or not the detection value of the power level in the downward light input signal is within a predetermined range is judged, and only if it is outside the predetermined range, that fact is transmitted to said station side apparatus.

20 4. The subscriber side apparatus according to claim 1, wherein whether or not the detection value of the power level in the downward light input signal is within the predetermined range is judged, and if a plurality of judged results are continuously outside the predetermined range, that fact is transmitted to said station side apparatus.

25 5. The subscriber side apparatus according to claim 3 or 4,

wherein if a next judged result after a transmission of a standard range violation report is outside the predetermined range, that fact is transmitted to said station side apparatus.

6. A station side apparatus in an optically communicating system for carrying out an optical communication in two ways between said station side apparatus and a subscriber side apparatus, wherein said subscriber side apparatus detects a power level of a downward light input signal from said station side apparatus and transmits a control information corresponding to that detection value 10 to said station side apparatus, and

it includes a unit for controlling a power level of a downward light output signal to said subscriber side apparatus in accordance with said control information.

7. The station side apparatus according to claim 6, 15 wherein said control information is the detection value of the power level in the downward light input signal, whether or not said detection value is within a predetermined range is judged, and

20 if it is outside the predetermined range, the power level of the downward light output signal is switched.

8. The station side apparatus according to claim 6, 25 wherein if said control information is a standard violation report indicating that the detection value of the power level of the downward light input signal is outside the predetermined range, and if said standard violation report is received, the power level of the

downward light output signal is switched.

9. The station side apparatus according to claim 6,
wherein if said control information is the standard violation
report indicating that the detection value of the power level of the
5 downward light input signal is outside the predetermined range, and
if a plurality of detection values are continuously outside the
predetermined range, an output power level of the downward light
output signal is switched.

10. The station side apparatus according to claim 8 or 9,
10 wherein if a next judged result after the power level of the downward
light output signal is switched becomes outside the predetermined
range, an alarm is outputted.

11. A station side apparatus in an optically communicating
system for carrying out an optical communication in two ways
15 between said station side apparatus and a subscriber side apparatus,
wherein a power level of a downward light output signal to
said subscriber side apparatus is controlled on the basis of a power
level of an upward light output signal from said subscriber side
apparatus.

20 12. The station side apparatus according to claim 11,
wherein the power level of the downward light output signal to said
subscriber side apparatus is switched in stages in accordance with a
hysteresis property.

13. The station side apparatus according to claim 6,
25 wherein after the power level of the downward light output signal to

said subscriber side apparatus is switched, a dummy data is inserted into a downward data.

14. The station side apparatus according to claim 6, wherein the power level of the downward light output signal to said 5 subscriber side apparatus is gradually changed.

15. The station side apparatus according to claim 6, wherein the downward light output signal to said subscriber side apparatus is a burst signal,

the power level of the downward light output signal is 10 switched between said burst signals, and

a preamble signal is added to a lead of said burst signal.

16. An optically communicating system for carrying out an optical communication in two ways between a station side apparatus and a subscriber side apparatus,

15 wherein said subscriber side apparatus detects a power level of a downward light input signal from said station side apparatus and transmits a control information corresponding to that detection value to said station side apparatus, and

20 said station side apparatus controls a power level of a downward light output signal to said subscriber side apparatus in accordance with said control information.

17. The optically communicating system according to claim 16, wherein said subscriber side apparatus transmits the detection value of the power level of the downward light input signal to said 25 station side apparatus for each constant time interval, and

said station side apparatus judges whether or not said detection value is within a predetermined range, and switches the power level of the downward light output signal if it is outside the predetermined range.

5 18. The optically communicating system according to claim 16, wherein said subscriber side apparatus judges whether or not the detection value of the power level of the downward light input signal is within the predetermined range, and only if it is outside the predetermined range, transmits that fact to said station side 10 apparatus, and

 said station side apparatus, if receiving said standard violation report, switches the power level of the downward light output signal.

15 19. The optically communicating system according to claim 16, wherein said subscriber side apparatus transmits the detection value of the power level of the downward light input signal for each constant time interval, and

20 said station side apparatus judges whether or not said detection value is within the predetermined range, and if a plurality of judged results are continuously outside the predetermined range, switches an output power level of the downward light output signal.

25 20. The optically communicating system according to claim 16, wherein said subscriber side apparatus judges whether or not the detection value of the power level of the downward light input signal is within the predetermined range, and if a plurality of judged

results are continuously outside the predetermined range, transmits that fact to said station side apparatus, and

5 said station side apparatus, if receiving said standard violation report, switches the power level of the downward light output signal.

21. The optically communicating system according to claim 16, wherein said station side apparatus outputs an alarm, if a next judged result after the power level of the downward light output signal is changed becomes outside the predetermined range.

10 22. An optically communicating system for carrying out an optical communication in two ways between a station side apparatus and a subscriber side apparatus,

15 wherein said station side apparatus controls a power level of a downward light output signal to said subscriber side apparatus on the basis of a power level of an upward light output signal from said subscriber side apparatus.

20 23. The optically communicating system according to claim 22, wherein said station side apparatus switches the power level of the downward light output signal to said subscriber side apparatus in stages in accordance with a hysteresis property.

24. The optically communicating system according to claim 16, wherein said station side apparatus, after switching the power level of the downward light output signal to said subscriber side apparatus, inserts a dummy data into a downward data.

25 25. The optically communicating system according to claim

16, wherein said station side apparatus gradually changes the power level of the downward light output signal to said subscriber side apparatus.

26. The optically communicating system according to claim
5 16,

wherein the downward light output signal to said subscriber side apparatus is a burst signal,

said station side apparatus switches the power level of the downward light output signal between said burst signals, and adds a
10 preamble signal to a lead of said burst signal.